DOCUMENT RESUME

ED 083 666 EA 005 402

| | |
|---|---|
| AUTHOR | Baas, Alan M. |
| TITLE | Joint Occupancy. Educational Facilities Review Series Number 22. |
| INSTITUTION | Oregon Univ., Eugene. ERIC Clearinghouse on Educational Management. |
| SPONS AGENCY | National Inst. of Education (DHEW), Washington, D.C. |
| PUB DATE | Dec 73 |
| CONTRACT | OEC-0-8-080353-3514 |
| NOTE | 6p. |
| EDRS PRICE | MF-$0.65 HC-$3.29 |
| DESCRIPTORS | Bibliographies; Consortia; Construction Costs; *Cost Effectiveness; *Educational Facilities; Elementary Schools; Higher Education; *Literature Reviews; School Construction; Secondary Schools; *Shared Services; Space Utilization; *Urban Schools |
| IDENTIFIERS | *Joint Occupancy; Shared Facilities |

ABSTRACT

The concept of joint occupancy (also known as shared facilities or multiple-use buildings) involves combining schools with apartment dwellings, commercial space, or community services and offices. Many leading educators and economists recommend this approach as a solution to both public and private urban school needs. Surveyed in this review are 13 documents and journal articles previously cited in RIE, ERIC's monthly abstract catalogs, dealing with methods of planning, financing, and constructing joint occupancy facilities for all educational levels. (Author)

EDUCATIONAL RESOURCES INFORMATION CENTER • CLEARINGHOUSE ON EDUCATIONAL MANAGEMENT

EDUCATIONAL FACILITIES REVIEW SERIES

EA 005 402

—an ongoing survey of topics in educational management designed to provide the practicing educator with reviews that are contemporary and sensitive to education's changing information requirements. Most of the reports cited in the reviews have been processed by this and other clearinghouses in the ERIC system and announced in *Research in Education (RIE)*, ERIC's monthly index and abstract catalog.

ED 083666

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

December 1973 Number 22

# Joint Occupancy

Alan M. Baas

> Whether the idea is simple economic self-interest, the preservation of housing, or building new kinds of urban communities, the principle is roughly the same; how to use scarce land to the greatest public and private advantage. . . . We cannot assume that land for schools can be put aside in perpetuity and never contribute to the fiscal health of a city beyond the contribution of educating children. To survive, schools must contribute significantly to the physical as well as the human renewal of cities.
> *Clinchy (1970)*

The concept of joint occupancy (also known as shared facilities or multiple-use buildings) involves combining schools with apartment dwellings, commercial space, or community services and offices. Many leading educators and economists recommend this approach as a solution to both public and private urban school needs. Although it presents complex legal problems in some states, joint occupancy is attractive because it can provide needed schools and reduce the financial impact of school construction costs.

The design of a joint-occupancy project varies substantially according to the characteristics and needs of each community. It is usually composed of a single structure or complex of mixed public and private uses, jointly designed, constructed, and operated by the participating parties. When local conditions and state laws permit, shared facilities may be arranged through lease or sale of air rights above school-owned land. In some cases, educational and other facilities are built in contiguous structures on adjoining sites.

FILMED FROM BEST AVAILABLE COPY

## ECONOMIC AND EDUCATIONAL BENEFITS

Because joint occupancy promises significant economic benefits to urban school districts, it is often dealt with in documents presenting a range of financing and construction alternatives. In one such document, published by the Educational Facilities Laboratories, Inc. (1971), the use of shared facilities is described as one of eight financing alternatives used successfully by school districts. EFL identifies three ways in which school districts and other community agencies may cooperate to build a common, shared facility.

First, the school district can build the facility and lease it to other agencies, using the income to offset capital and operating expenses. This method does not benefit the district financially, but it does help the city avoid the cost of duplicate facilities.

Second, the district can ask the other agency to build the facility in conjunction with a new school. This reduces the capital cost and is attractive to districts with tight budgets. A third option shares first costs based on expected *pro rata* usage.

Cooperative use of the same facility can reduce a district's construction and maintenance costs, while providing, within the same physical structure, a range of public services in addition to education. EFL lists some prospective agencies willing to share facilities and discusses methods of working out cost-sharing formulas.

Joint occupancy receives attention in another EFL publication that focuses on design and construction alternatives for reducing the cost of educational space (Clinchy and others 1971). This document briefly discusses the concept and gives several examples of its application. Partnership arrangements for school-community complexes can be made with either private or public parties. Shared facilities offer a valuable tool for city planners seeking to provide a package of community services at one time.

Treating joint occupancy within the context of places and things for experimental schools, Molloy and others (1972) identify four advantages:

- Sharing instead of competing with other enterprises for land eases site acquisition problems
- Property taxes paid by commercial partners increase the tax base
- The city is able to acquire sites for other public or subsidized facilities such as libraries, health centers, or subsidized housing
- Both facilities and programs may be shared under this concept. For example, an office building built over a commercial high school offers possibilities for work/study programs, apartment dwellers in a similar arrangement could use the school's recreational facilities

These authors describe New York City's shared-facilities projects and present a chart listing current projects in the city and the United States.

In addition to the obvious financial benefits of sharing facilities, joint occupancy suggests a solution to many urban social and educational problems. By blending schools with community facilities serving varied ethnic groups and income levels, the concept "creates a new environment, a kind of small city with a life of its own but also intimately connected with its neighborhood and the rest of the larger city" (Clinchy 1970). Clinchy's comprehensive and well-illustrated survey of joint occupancy projects gives the background, physical characteristics, and advantages of ten

significant examples. Cases studied include instances of shared sites, shared buildings, and total environment projects relating parts structurally and functionally.

Clinchy also reports several prerequisites necessary for a successful sharing of facilities. All parties involved must be willing to work out long series of details and make the necessary compromises to achieve the desired result. One of the participants should serve as a single coordinating agent. It is also important that legal mechanisms exist or be created to make joint occupancy possible. In some states, legislative action may be required to facilitate sharing among public and private parties. It may be necessary to form entirely new legal entities.

### New York City

The New York Educational Construction Fund (ECF) was created in 1966 to carry out an imaginative program of urban development by constructing public schools as part of multiple-use structures. Nelson (1969) explains that ECF is a self-sustaining corporation established to stimulate economic construction through leasing a school's air rights and adjacent property to private developers. It can issue its own bonds outside the city's debt limit and retire the bonds with income received from the commercial partner. The developer constructs both the school and the nonschool parts of the facility.

Nelson reports that multiuse building adds a new dimension to community development, leading to a greater integration of school, home, and business aspects of urban life. In addition, the sizes of new schools can be economically reduced, thereby creating a more personal atmosphere for learning.

ECF's use of modern design and construction techniques permits schools to be open more hours and generally serve as focal points of the community. To ensure total acceptance of its projects, the fund is involved in the total planning process of the city, submitting itself to review by both city agencies and local community groups.

P. S. 126, a three-story elementary school sharing its site with a twenty-five story moderate income apartment development, is the first ECF project to be completed ("Buildings. . ." 1972 and "Joint Occupancy Projects. . ." 1972). The fund currently has plans for twenty-three more such facilities: twenty-one school/apartment combinations and two school/office building units. Total expected costs of these projects will be approximately $180 million for the schools and $380 million for the commercial spaces.

Under the ECF arrangement, the developer agrees to build the school in order to benefit from ownership of the commercial or housing development. He must finance the nonschool portion independently, but is relieved of land acquisition costs.

Two New York architects discuss their experiences with air-rights construction in *Progressive Architecture* ("Architectural Acrobatics" 1973). Air rights conventionally refers to "piggyback" construction of one building directly over another building (as in some joint occupancy projects) or over public areas such as roadways, rivers, or railroads. The architects agree that this type of construction frequently has more hidden problems than advantages. Instead, they recommend "contiguous" projects as eliminating some of the expensive engineering costs of piggyback buildings.

A contiguous solution depends on city ordinances defining how much volume may be built on a given plot and whether unused volume from one piece of land may be

transferred to an adjacent building. When possible, joint-occupancy projects can be built with school buildings girdling highrise income-producing structures, as is the case with ECF's P. S. 126. As an added advantage of this approach, the roof of the school may serve as a playground and recreation area for both students and apartment dwellers.

A detailed discussion of joint occupancy appears in Lieberman's (1972) report on the educational facility options available in New York City. Much of the impetus behind New York's shared-facility projects has come in response to overcrowding of existing schools by children from new apartment complexes. As a result, residents of several areas of the city have opposed new construction until there are guarantees of adequate supporting services.

Lieberman identifies several efforts by the city to remedy this situation, including full-sized, ECF-sponsored joint-occupancy schools and schools built by the city's housing authority alongside of housing projects.

The New York City Board of Education has asked that shared facility schools be located within the apartment structure itself, perhaps on the first and/or second floors. Lieberman lists criteria for such schools:

- The educational program will be based on the open-space concept
- There should be a minimum of 6,000 square feet of floor space
- Access to school space should be separate from the apartment entrance
- Play space must be accessible from the school and usable by housing residents after school hours
- Spaces should be air-conditioned for year-round use

An early publication by Clinchy (1960) reports on one of the first experiments in joining school facilities and urban public housing projects. The school is located on the ground floors of three separate units of a public housing project in Queens, New York City. Proximity of both students and parents to the school eliminates transportation problems and strengthens parent-teacher relations. In this type of joint occupancy, options exist for expanding or contracting the school to match enrollments and avoid leaving school spaces vacant.

Major difficulties of the plan pertain to distribution of administration and maintenance services. In this particular case, additional troubles were caused by the fact that none of the spaces were originally designed for school use. Clinchy notes that the school served as a focal point for the housing project and was used by adults for more hours and purposes than was the case in the typical New York school at that time.

### HIGHER EDUCATION

An unprecedented level of higher educational facility sharing is currently being explored in the development of a super-campus in Denver, Colorado ("Auraria. . ." 1973). The progress and success of the Auraria Higher Education Center, particularly with respect to major political issues of ownership and control, provides valuable information for future experiments in shared facilities.

Intended to reduce duplication of effort and facilities among the city's three public institutes of higher education, the concept originally called for a "shared cluster" of buildings that would fill about 30 percent of the total space planned for the site. This would include all physical education facilities, most central services, and major elements of the library, student activity, and administrative units of each participating college. The remaining space was to be used separately by each college.

Intervening political and financial factors caused the original plan of specialized shared facilities to be altered so that almost every building on the proposed super-campus will be shared among the three colleges. The campus plan is being developed jointly by five architectural and planning firms. Architects will then be selected (not necessarily from the firms involved in the overall planning) to design individual buildings. Complete occupancy is projected for fall 1976.

A detailed site master plan for the Auraria Center (Auraria Higher Education Center 1971) describes and illustrates the relationship between the center's architectural characteristics and its educational and community goals. Site master planning is explained as the key element leading to the development of a total facility that will provide an effective and aesthetically pleasing environment. Each site plan drawing deals with a specific planning response to the "form generators" identified for the center. Form generators are those forces combining to influence educational design—for example, the students and faculty of the participating institutions, the city of Denver and its planning goals, the city transportation system, various environmental considerations, and the use of interim facilities. Plans are also given for street networks, mass transit, pedestrian circulation, energy distribution, expansion potential, and preliminary cost estimates. Care is taken to preserve the existing historical buildings on the site.

A recent article in *Planning for Higher Education* ("Baltimore. . ." 1973) describes the unsuccessful attempts of one college to share its facilities with commercial interests. Planners for a community college in Baltimore reasoned that sharing its campus with neighborhood commercial enterprises would provide excellent work-study opportunities, avoid development of the college as an isolated island within the community, and provide additional income from rental of campus space to businesses. Joint occupancy of the same site would also avoid displacement of a wide range of commercial services vital to the community as a whole. Despite the logic of these advantages, bureaucratic inertia and laws governing financing of public buildings prevented construction of the proposed campus.

## REFERENCES

Documents cited with ED numbers are abstracted in *Research in Education*. The complete texts are available from the ERIC Document Reproduction Service (EDRS), commercial channels, or both. Publications can be ordered in either Xerox copy form (HC) or microfiche (MF).

For each order, indicate the ED numbers of the desired publications, the type of reproduction desired (paper or microfiche), and the number of copies being ordered.

Payment must accompany orders under $10.00. Postage, at book rate or library rate, is included in the price of the document. If first class mailing is desired or if shipment is outside the continental United States, the difference between book rate or library rate and first class or foreign postage will be billed at cost. All orders must be in writing.

Journal articles cited with EJ numbers are indexed in *Current Index to Journals in Education*, a monthly companion index to *Research in Education*. Reproductions of the journal articles are not available from EDRS.

**Address requests to** ERIC Document Reproduction Service, P. O. Drawer O, Bethesda, Maryland 20014.

"Architectural Acrobatics." *Progressive Architecture*, 54, 3 (March 1973), pp. 92-95. EJ 074 567.

Auraria Higher Education Center. *Site Planning: Auraria Higher Education Center*. Denver: 1971. 116 pages. ED 072 548 MF $0.65 HC $6.58.

"Auraria: Super-Campus for Denver." *Planning for Higher Education*, 2, 1 (February 1973), pp. 13-15.

"Baltimore. The College That Tried." *Planning for Higher Education*, 2, 2 (April 1973), pp. 13-15.

"Buildings: Economical Air Rights Plan Combines Apartment with Elementary School." *American School & University*, 45, 1 (September 1972), pp. 50-52. EJ 063 249.

Clinchy, Evans. *Public School No. 9, Borough of Queens, New York City. Profiles of Significant Schools.* New York: Educational Facilities Laboratories, Inc., 1960. 15 pages. ED 032 733 MF $0.65 HC $3.29.

———. *Joint Occupancy: Profiles of Significant Schools.* New York: Educational Facilities Laboratories, Inc., 1970. 37 pages. ED 046 079 MF $0.65 HC $3.29. (Also available from Educational Facilities Laboratories, Inc., 477 Madison Avenue, New York, New York 10022. $1.00.)

———, and others. *Schools: More Space/Less Money. A Report.* New York: Educational Facilities Laboratories, Inc., 1971. 85 pages. ED 060 529 MF $0.65 HC $3.29.

———. *Guide to Alternatives for Financing School Buildings. A Report.* New York: 1971. 48 pages. ED 056 422 MF $0.65 HC $3.29. (Also available from Educational Facilities Laboratories, Inc., 477 Madison Avenue, New York, New York 10022. $2.00.)

"Joint-Occupancy Projects: 'Disciplined Over-Density'." *Building Design & Construction*, 13, 10 (October 1972), pp. 62-63.

Lieberman, Rachel Radio. *Urban Educational Facilities Options: If It Can Be Done in New York City, It Can Be Done Anywhere.* Brooklyn: New York City Board of Education, 1972. 121 pages. ED 065 934 MF $0.65 HC $6.58.

Molloy, Laurence, and others. *Places and Things for Experimental Schools.* New York: Educational Facilities Laboratories, Inc., 1972. 268 pages. ED 060 560 MF $0.65 HC $9.87. (Also available from Educational Facilities Laboratories, Inc., 477 Madison Avenue, New York, New York 10022. $2.00.)

Nelson, Daniel Z. ["Does Combined Occupancy Space Really Work?"] Speech presented at Council of Educational Facility Planners annual conference, Memphis, October 1969. 4 pages. ED 032 740 MF $0.65 HC $3.29.

Clearinghouse Accession Number: EA 005 402

Prior to publication, the manuscript was submitted to the Council of Educational Facility Planners for critical review and determination of professional competence. This publication has met such standards. Points of view or opinions, however, do not necessarily represent the official view or opinions of the Council of Educational Facility Planners.

The Educational Resources Information Center (ERIC) is a national information system operated by the National Institute of Education. ERIC serves educators by disseminating research results and other resource information that can be used in developing more effective educational programs.

The ERIC Clearinghouse on Educational Management, one of several such units in the system, was established at the University of Oregon in 1966. The Clearinghouse and its companion units process research reports and journal articles for announcement in ERIC's index and abstract bulletins.

Research reports are announced in *Research in Education (RIE)*, available in many libraries and by subscription for $38 a year from the United States Government Printing Office, Washington, D.C. 20402.

Journal articles are announced in *Current Index to Journals in Education. CIJE* is also available in many libraries and can be ordered for $44 a year from CCM Information Corporation, 866 Third Avenue, Room 1126, New York, New York 10022.

Besides processing documents and journal articles, the Clearinghouse prepares bibliographies, literature reviews, monographs, and other interpretive research studies on topics in its educational area.

---

The ERIC Clearinghouse on Educational Management operates under contract with the National Institute of Education of the United States Department of Health, Education, and Welfare. This review was prepared pursuant to that contract. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official Institute of Education position or policy.

**ERIC Clearinghouse on Educational Management, University of Oregon, Eugene, Oregon 97403**